

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) ~~Circuit~~ A circuit to reduce the variations of ~~[[the]]~~ an auto-supply voltage $[[V_{cc}]]$ of a control circuit $[[12]]$ of a switching power supply ~~[[where]]~~ wherein said control circuit $[[12]]$ supplies an activation or deactivation signal for a power transistor comprising:

a generator $[[W_a]]$ of said auto-supply voltage $[[V_{cc}]]$;

~~characterised in that it comprises~~ a controlled switch $[[T]]$ capable of selectively ~~connecting~~ coupling said generator $[[W_a]]$ to said control circuit $[[12]]$; and

a driving circuit $[[SW_2]]$ of said controlled switch $[[T]]$ that supplies a closing signal of said controlled switch $[[T]]$ after a predefined time delay $[[T_d]]$ starting from said deactivation command.

2. (Currently Amended) ~~Circuit in accordance with~~ The circuit of claim 1 ~~characterised in that it comprises~~ further comprising a circuit generator ~~(Ieh, C, SW1)~~ that generates said predefined time delay.

3. (Currently amended) ~~Circuit in accordance with~~ The circuit of claim ~~[[1]]~~ 2 ~~characterised in that~~ wherein said circuit generator ~~(Ieh, C, SW1)~~ generates said predefined time delay proportionally to a voltage ~~(V_{comp})~~ proportional to the load of said switching power supply.

4. (Currently amended) ~~Circuit in accordance with~~ The circuit of claim 1 ~~characterised in that~~ further comprising a first comparator ~~(COM1)~~ that compares a voltage ~~(V_{comp})~~ proportional to the load of said switching power supply with a first reference voltage $[[V_{t1}]]$, said predefined time delay ~~(T_d)~~ is being substantially ~~[[nil]]~~ zero when said voltage ~~(V_{comp})~~ proportional to the load of said switching power supply is lower than said first reference voltage ~~(V_{t1})~~.

5. (Currently Amended) ~~Circuit in accordance with~~ The circuit of claim ~~[[1]]~~ 4 ~~characterised in that~~ further comprising a second comparator ~~(COM2)~~ that compares ~~[[a]]~~ the voltage ~~(V_{comp})~~ proportional to the load of said switching power supply with a second reference voltage $[[V_{t2}]]$, said controlled switch ~~(T)~~ remains remaining open

when said voltage (V_{comp}) proportional to the load of said switching power supply is higher than said second reference voltage V_{t2} .

6. (Currently amended) ~~Circuit in accordance with~~ The circuit of claim 1 ~~characterised in that~~ wherein said driving circuit $[(12)]$ of said controlled switch $[(T)]$ supplies an opening signal of said controlled switch $[(T)]$ starting from said activation command.

7. (Currently amended) ~~Switching power supply comprising a~~ The circuit for ~~reducing the variations of the auto supply voltage of the control circuit of a switching power supply in accordance with~~ of claim 1 wherein the controlled switch comprises a PNP transistor.

8. (Currently amended) ~~Method~~ A method for reducing the variations of ~~the~~ an auto-supply voltage V_{cc} of a control circuit $[(12)]$ of a switching power supply ~~where~~ wherein said control circuit $[(12)]$ supplies an activation or deactivation ~~command~~ signal ~~of~~ for a power transistor ~~characterised in that it comprising~~ selectively ~~connects~~ coupling the secondary of ~~the~~ a transformer $[(Wa)]$ of said switching supply to said control circuit $[(12)]$ after a predefined delay of time T_d starting from said deactivation command.

9. (New) A switching power supply including a circuit to reduce the variations of an auto-supply voltage of a control circuit of the switching power supply wherein said control circuit supplies an activation or deactivation signal for a power transistor comprising:

a generator of said auto-supply voltage;

a controlled switch operable for selectively coupling said generator to said control circuit; and

a driving circuit of said controlled switch that supplies a closing signal of said controlled switch after a predefined time delay starting from said deactivation command.

10. (New) The switching power supply of claim 9 further comprising a circuit generator that generates said predefined time delay.

11. (New) The switching power supply of claim 10 wherein said circuit generator generates said predefined time delay proportionally to a voltage proportional to

the load of said switching power supply.

12. (New) The switching power supply of claim 9 further comprising a first comparator that compares a voltage proportional to the load of said switching power supply with a first reference voltage, said predefined time delay being substantially zero when said voltage proportional to the load of said switching power supply is lower than said first reference voltage.

13. (New) The switching power supply of claim 12 further comprising a second comparator that compares the voltage proportional to the load of said switching power supply with a second reference voltage, said controlled switch remaining open when said voltage proportional to the load of said switching power supply is higher than said second reference voltage.

14. (New) The switching power supply of claim 9 wherein said driving circuit of said controlled switch supplies an opening signal of said controlled switch starting from said activation command.

15. (New) The circuit of claim 9 wherein the controlled switch comprises a PNP transistor.